

CITY OF BARTOW
MUNICIPAL FIREFIGHTERS' RETIREMENT TRUST FUND

SECTION 112.664, FLORIDA STATUTES
COMPLIANCE

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664(1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

By: Patrick T. Donlan Date: 6/26/2015

Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #14-6595



When reviewing the following schedules, please note the following:

- 1) The purpose of producing this report is solely to satisfy the requirements set forth by Section 112.664, Florida Statutes, and is mandatory for every Florida public pension fund, excluding the Florida Retirement System (FRS).
- 2) None of the schedules shown have any impact on the funding requirements of the Plan. These schedules are for statutory compliance purposes only.
- 3) In the schedules that follow, the columns labeled “ACTUAL” represent the final recorded GASB 67/68 results. The columns labeled “HYPOTHETICAL” illustrate what the results would have been if different assumptions were used.
- 4) It is our opinion that the Plan’s actual assumptions utilized in the October 1, 2014 Actuarial Valuation Report, as adopted by the Board of Trustees, are reasonable individually and in the aggregate, and represent our best estimate of future Plan experience.
- 5) The “Number of Years Expected Benefit Payments Sustained” calculated in Section II: Asset Sustainability should not be interpreted as the number of years the Plan has left until it is insolvent. This calculation is required by 112.664, Florida Statutes, but the numeric result is irrelevant, since in its calculation we are to assume there will be no further contributions to the Fund. As long as the Actuarially Determined Contribution is made each year the Plan will never become insolvent.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

	ACTUAL	HYPOTHETICAL		
	8.00% RP-2000 Static 9/30/14	8.00% RP-2000 Generational 9/30/14	6.00% RP-2000 Generational 9/30/14	10.00% RP-2000 Generational 9/30/14
Total Pension Liability				
Service Cost	254,405	267,610	426,188	172,683
Interest	721,135	749,217	727,703	745,855
Change in Excess State Money	26,346	26,346	26,346	26,346
Share Plan Allocation	-	-	-	-
Changes of Benefit Terms				
Differences Between Expected and Actual Experience	-	-	-	-
Changes of Assumptions				
Benefit Payments, Including Refunds of Employee Contributions	(393,887)	(393,887)	(393,887)	(393,887)
Net Change in Total Pension Liability	607,999	649,286	786,350	550,997
Total Pension Liability - Beginning	9,081,847	9,419,669	12,024,268	7,607,932
Total Pension Liability - Ending (a)	<u>\$ 9,689,846</u>	<u>\$ 10,068,955</u>	<u>\$ 12,810,618</u>	<u>\$ 8,158,929</u>
Plan Fiduciary Net Position				
Contributions - Employer	420,393	420,393	420,393	420,393
Contributions - State	112,451	112,451	112,451	112,451
Contributions - Employee	19,518	19,518	19,518	19,518
Net Investment Income	783,289	783,289	783,289	783,289
Benefit Payments, Including Refunds of Employee Contributions	(393,887)	(393,887)	(393,887)	(393,887)
Administrative Expense	(43,268)	(43,268)	(43,268)	(43,268)
Other	-	-	-	-
Net Change in Plan Fiduciary Net Position	898,495	898,495	898,495	898,495
Plan Fiduciary Net Position - Beginning	7,110,905	7,110,905	7,110,905	7,110,905
Plan Fiduciary Net Position - Ending (b)	<u>\$ 8,009,400</u>	<u>\$ 8,009,400</u>	<u>\$ 8,009,400</u>	<u>\$ 8,009,400</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,680,445</u>	<u>\$ 2,059,555</u>	<u>\$ 4,801,218</u>	<u>\$ 149,528</u>

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 1
Plan Assumptions: 8.00% and RP-2000 Static Mortality

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	8,009,400	-	403,716	-	624,603	8,230,287
2015	8,230,287	-	471,673	-	639,556	8,398,170
2016	8,398,170	-	510,804	-	651,421	8,538,787
2017	8,538,787	-	600,659	-	659,077	8,597,205
2018	8,597,205	-	605,092	-	663,573	8,655,686
2019	8,655,686	-	681,315	-	665,202	8,639,573
2020	8,639,573	-	685,358	-	663,752	8,617,967
2021	8,617,967	-	717,743	-	660,728	8,560,952
2022	8,560,952	-	743,304	-	655,144	8,472,792
2023	8,472,792	-	773,595	-	646,880	8,346,077
2024	8,346,077	-	799,733	-	635,697	8,182,041
2025	8,182,041	-	797,158	-	622,677	8,007,560
2026	8,007,560	-	802,076	-	608,522	7,814,006
2027	7,814,006	-	801,015	-	593,080	7,606,071
2028	7,606,071	-	798,429	-	576,549	7,384,191
2029	7,384,191	-	794,229	-	558,966	7,148,928
2030	7,148,928	-	829,644	-	538,728	6,858,012
2031	6,858,012	-	822,779	-	515,730	6,550,963
2032	6,550,963	-	811,418	-	491,620	6,231,165
2033	6,231,165	-	805,631	-	466,268	5,891,802
2034	5,891,802	-	793,875	-	439,589	5,537,516
2035	5,537,516	-	780,985	-	411,762	5,168,293
2036	5,168,293	-	766,745	-	382,794	4,784,342
2037	4,784,342	-	754,133	-	352,582	4,382,791
2038	4,382,791	-	735,051	-	321,221	3,968,961
2039	3,968,961	-	712,923	-	289,000	3,545,038
2040	3,545,038	-	687,727	-	256,094	3,113,405
2041	3,113,405	-	663,572	-	222,530	2,672,363
2042	2,672,363	-	637,339	-	188,295	2,223,319
2043	2,223,319	-	609,270	-	153,495	1,767,544
2044	1,767,544	-	580,266	-	118,193	1,305,471
2045	1,305,471	-	550,126	-	82,433	837,778
2046	837,778	-	519,067	-	46,260	364,971
2047	364,971	-	487,132	-	-	-

Number of Years Expected Benefit Payments Sustained: 33.75

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 8.00% interest.

It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent.

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 2
Hypothetical Assumptions: 8.00% and RP-2000 Generational Mortality

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	8,009,400	-	403,818	-	624,599	8,230,181
2015	8,230,181	-	472,061	-	639,532	8,397,652
2016	8,397,652	-	511,532	-	651,351	8,537,471
2017	8,537,471	-	601,895	-	658,922	8,594,498
2018	8,594,498	-	606,949	-	663,282	8,650,831
2019	8,650,831	-	683,877	-	664,711	8,631,665
2020	8,631,665	-	688,677	-	662,986	8,605,974
2021	8,605,974	-	721,920	-	659,601	8,543,655
2022	8,543,655	-	748,464	-	653,554	8,448,745
2023	8,448,745	-	779,693	-	644,712	8,313,764
2024	8,313,764	-	807,288	-	632,810	8,139,286
2025	8,139,286	-	807,133	-	618,858	7,951,011
2026	7,951,011	-	814,597	-	603,497	7,739,911
2027	7,739,911	-	817,094	-	586,509	7,509,326
2028	7,509,326	-	817,016	-	568,065	7,260,375
2029	7,260,375	-	817,375	-	548,135	6,991,135
2030	6,991,135	-	856,369	-	525,036	6,659,802
2031	6,659,802	-	853,939	-	498,627	6,304,490
2032	6,304,490	-	847,368	-	470,464	5,927,586
2033	5,927,586	-	847,077	-	440,324	5,520,833
2034	5,520,833	-	840,797	-	408,035	5,088,071
2035	5,088,071	-	833,159	-	373,719	4,628,631
2036	4,628,631	-	824,716	-	337,302	4,141,217
2037	4,141,217	-	818,191	-	298,570	3,621,596
2038	3,621,596	-	805,253	-	257,518	3,073,861
2039	3,073,861	-	789,579	-	214,326	2,498,608
2040	2,498,608	-	771,641	-	169,023	1,895,990
2041	1,895,990	-	753,953	-	121,521	1,263,558
2042	1,263,558	-	733,888	-	71,729	601,399
2043	601,399	-	711,875	-	-	-

Number of Years Expected Benefit Payments Sustained: 29.84

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 8.00% interest.

It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent.

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 3
Hypothetical Assumptions: 6.00% and RP-2000 Generational Mortality

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	8,009,400	-	403,818	-	468,449	8,074,031
2015	8,074,031	-	472,061	-	470,280	8,072,250
2016	8,072,250	-	511,532	-	468,989	8,029,707
2017	8,029,707	-	601,895	-	463,726	7,891,538
2018	7,891,538	-	606,949	-	455,284	7,739,873
2019	7,739,873	-	683,877	-	443,876	7,499,872
2020	7,499,872	-	688,677	-	429,332	7,240,527
2021	7,240,527	-	721,920	-	412,774	6,931,381
2022	6,931,381	-	748,464	-	393,429	6,576,346
2023	6,576,346	-	779,693	-	371,190	6,167,843
2024	6,167,843	-	807,288	-	345,852	5,706,407
2025	5,706,407	-	807,133	-	318,170	5,217,444
2026	5,217,444	-	814,597	-	288,609	4,691,456
2027	4,691,456	-	817,094	-	256,975	4,131,337
2028	4,131,337	-	817,016	-	223,370	3,537,691
2029	3,537,691	-	817,375	-	187,740	2,908,056
2030	2,908,056	-	856,369	-	148,792	2,200,479
2031	2,200,479	-	853,939	-	106,411	1,452,951
2032	1,452,951	-	847,368	-	61,756	667,339
2033	667,339	-	847,077	-	-	-

Number of Years Expected Benefit Payments Sustained: 19.79

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 6.00% interest.

It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent.

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 4
Hypothetical Assumptions: 10.00% and RP-2000 Generational Mortality

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	8,009,400	-	403,818	-	780,749	8,386,331
2015	8,386,331	-	472,061	-	815,030	8,729,300
2016	8,729,300	-	511,532	-	847,353	9,065,121
2017	9,065,121	-	601,895	-	876,417	9,339,643
2018	9,339,643	-	606,949	-	903,617	9,636,311
2019	9,636,311	-	683,877	-	929,437	9,881,871
2020	9,881,871	-	688,677	-	953,753	10,146,947
2021	10,146,947	-	721,920	-	978,599	10,403,626
2022	10,403,626	-	748,464	-	1,002,939	10,658,101
2023	10,658,101	-	779,693	-	1,026,825	10,905,233
2024	10,905,233	-	807,288	-	1,050,159	11,148,104
2025	11,148,104	-	807,133	-	1,074,454	11,415,425
2026	11,415,425	-	814,597	-	1,100,813	11,701,641
2027	11,701,641	-	817,094	-	1,129,309	12,013,856
2028	12,013,856	-	817,016	-	1,160,535	12,357,375
2029	12,357,375	-	817,375	-	1,194,869	12,734,869
2030	12,734,869	-	856,369	-	1,230,668	13,109,168
2031	13,109,168	-	853,939	-	1,268,220	13,523,449
2032	13,523,449	-	847,368	-	1,309,977	13,986,058
2033	13,986,058	-	847,077	-	1,356,252	14,495,233
2034	14,495,233	-	840,797	-	1,407,483	15,061,919
2035	15,061,919	-	833,159	-	1,464,534	15,693,294
2036	15,693,294	-	824,716	-	1,528,094	16,396,672
2037	16,396,672	-	818,191	-	1,598,758	17,177,239
2038	17,177,239	-	805,253	-	1,677,461	18,049,447
2039	18,049,447	-	789,579	-	1,765,466	19,025,334
2040	19,025,334	-	771,641	-	1,863,951	20,117,644
2041	20,117,644	-	753,953	-	1,974,067	21,337,758
2042	21,337,758	-	733,888	-	2,097,081	22,700,951
2043	22,700,951	-	711,875	-	2,234,501	24,223,577
2044	24,223,577	-	688,488	-	2,387,933	25,923,022
2045	25,923,022	-	663,571	-	2,559,124	27,818,575
2046	27,818,575	-	637,134	-	2,750,001	29,931,442
2047	29,931,442	-	609,199	-	2,962,684	32,284,927
2048	32,284,927	-	579,888	-	3,199,498	34,904,537
2049	34,904,537	-	549,069	-	3,463,000	37,818,468
2050	37,818,468	-	516,980	-	3,755,998	41,057,486
2051	41,057,486	-	483,867	-	4,081,555	44,655,174
2052	44,655,174	-	450,056	-	4,443,015	48,648,133
2053	48,648,133	-	416,154	-	4,844,006	53,075,985
2054	53,075,985	-	382,393	-	5,288,479	57,982,071
2055	57,982,071	-	348,836	-	5,780,765	63,414,000
2056	63,414,000	-	316,301	-	6,325,585	69,423,284
2057	69,423,284	-	285,133	-	6,928,072	76,066,223
2058	76,066,223	-	255,500	-	7,593,847	83,404,570
2059	83,404,570	-	227,706	-	8,329,072	91,505,936
2060	91,505,936	-	202,110	-	9,140,488	100,444,314
2061	100,444,314	-	179,084	-	10,035,477	110,300,707
2062	110,300,707	-	158,334	-	11,022,154	121,164,527
2063	121,164,527	-	139,693	-	12,109,468	133,134,302
2064	133,134,302	-	123,446	-	13,307,258	146,318,114
2065	146,318,114	-	109,106	-	14,626,356	160,835,364
2066	160,835,364	-	96,212	-	16,078,726	176,817,878
2067	176,817,878	-	84,737	-	17,677,551	194,410,692

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 4
Hypothetical Assumptions: 10.00% and RP-2000 Generational Mortality

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2068	194,410,692	-	74,420	-	19,437,348	213,773,620
2069	213,773,620	-	65,015	-	21,374,111	235,082,716
2070	235,082,716	-	56,512	-	23,505,446	258,531,650
2071	258,531,650	-	48,828	-	25,850,724	284,333,546
2072	284,333,546	-	41,889	-	28,431,260	312,722,917
2073	312,722,917	-	35,630	-	31,270,510	343,957,797
2074	343,957,797	-	30,004	-	34,394,280	378,322,073
2075	378,322,073	-	25,045	-	37,830,955	416,127,983
2076	416,127,983	-	20,667	-	41,611,765	457,719,081
2077	457,719,081	-	16,820	-	45,771,067	503,473,328
2078	503,473,328	-	13,539	-	50,346,656	553,806,445
2079	553,806,445	-	10,768	-	55,380,106	609,175,783
2080	609,175,783	-	8,424	-	60,917,157	670,084,516
2081	670,084,516	-	6,497	-	67,008,127	737,086,146
2082	737,086,146	-	4,959	-	73,708,367	810,789,554
2083	810,789,554	-	3,722	-	81,078,769	891,864,601
2084	891,864,601	-	2,741	-	89,186,323	981,048,183
2085	981,048,183	-	1,991	-	98,104,719	1,079,150,911
2086	1,079,150,911	-	1,415	-	107,915,020	1,187,064,516
2087	1,187,064,516	-	978	-	118,706,403	1,305,769,941
2088	1,305,769,941	-	664	-	130,576,961	1,436,346,238
2089	1,436,346,238	-	441	-	143,634,602	1,579,980,399
2090	1,579,980,399	-	284	-	157,998,026	1,737,978,141
2091	1,737,978,141	-	179	-	173,797,805	1,911,775,767
2092	1,911,775,767	-	111	-	191,177,571	2,102,953,227
2093	2,102,953,227	-	68	-	210,295,319	2,313,248,478
2094	2,313,248,478	-	42	-	231,324,846	2,544,573,282
2095	2,544,573,282	-	25	-	254,457,327	2,799,030,584
2096	2,799,030,584	-	15	-	279,903,058	3,078,933,627
2097	3,078,933,627	-	9	-	307,893,362	3,386,826,980
2098	3,386,826,980	-	6	-	338,682,698	3,725,509,672
2099	3,725,509,672	-	3	-	372,550,967	4,098,060,636
2100	4,098,060,636	-	2	-	409,806,064	4,507,866,698
2101	4,507,866,698	-	1	-	450,786,670	4,958,653,367
2102	4,958,653,367	-	1	-	495,865,337	5,454,518,703
2103	5,454,518,703	-	-	-	545,451,870	5,999,970,573

Number of Years Expected Benefit Payments Sustained:

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 10.00% interest.

It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent.

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR
ENDING SEPTEMBER 30, 2016

Valuation Date: 10/1/2014

	ACTUAL		HYPOTHETICAL	
	8.00% RP-2000 Static	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
Total Required Contribution	\$512,158	\$552,799	\$839,030	\$343,056
Expected Member Contribution	20,689	20,689	20,689	20,689
Expected State Money	86,105	86,105	86,105	86,105
Expected Sponsor Contribution (Fixed \$)	\$405,364	\$446,005	\$732,236	\$236,262
Expected Sponsor Contribution (% of Payroll)	39.2%	43.2%	70.8%	22.8%

ASSETS

Actuarial Value	7,679,131	7,679,131	7,679,131	7,679,131
Market Value	8,009,400	8,009,400	8,009,400	8,009,400

LIABILITIES

Present Value of Benefits				
Active Members				
Retirement Benefits	6,033,735	6,355,278	9,331,172	4,553,044
Disability Benefits	65,257	68,951	96,972	51,343
Death Benefits	34,992	24,847	32,497	19,377
Vested Benefits	206,895	218,116	376,428	132,585
Refund of Contributions	1,599	1,599	1,633	1,566
Service Retirees	3,779,047	3,894,885	4,701,704	3,309,463
Beneficiaries	344,742	352,325	418,991	302,796
Terminated Vested	547,750	562,843	736,356	445,938
Disability Retirees	158,735	163,834	196,986	139,527
Excess State Monies Reserve	151,468	151,468	151,468	151,468
Total:	11,324,220	11,794,146	16,044,207	9,107,107
Present Value of Future Salaries	7,832,950	7,842,815	8,780,301	7,088,064
Present Value of Future Member Contributions	156,659	156,856	175,606	141,761
Total Normal Cost (FIL Method)	387,273	400,014	536,916	326,720
Present Value of Future Normal Costs (Entry Age Normal)	1,754,516	1,854,813	3,379,339	1,060,744
Total Actuarial Accrued Liability	8,391,762	8,761,391	11,486,926	6,868,421
Unfunded Actuarial Accrued Liability (Entry Age Normal)	712,631	1,082,260	3,807,795	(810,710)

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR
ENDING SEPTEMBER 30, 2016

Valuation Date: 10/1/2014

	ACTUAL	HYPOTHETICAL		
	8.00% RP-2000 Static	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
<u>PENSION COST</u>				
Normal Cost (with interest)	402,764	416,015	553,023	343,056
Administrative Expenses (with interest)	45,000	45,000	44,567	45,432
Payment Required To Amortize UAAL (with interest)	64,394	91,784	241,440	(61,942)
Total Required Contribution	\$512,158	\$552,799	\$839,030	\$343,056 ¹

¹ Per Florida Statutes, the Minimum Required Contribution may be no less than the Normal Cost.